

## Claims

1. A handheld power tool having a motor (10), a planetary gear (12) and a tool  
5 receptacle (4), characterized by an air-moving means (46, 78), located upstream  
the motor (10), out of sight of the tool receptacle (4), for generating a cooling air  
stream that cools the planetary gear (12).
2. The handheld power tool as defined by claim 1, characterized in that the air-  
10 moving means (46, 78) is integrated with the planetary gear (12).
3. The handheld power tool as defined by claim 1 or 2, characterized in that  
the air-moving means (46, 78) is located between the motor (10) and a gear stage  
of the planetary gear (12).  
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4. The handheld power tool as defined by one of the foregoing claims,  
characterized in that the air-moving means (46, 78) is provided for generating a  
cooling air stream flowing through the planetary gear (12).
- 20 5. The handheld power tool as defined by one of the foregoing claims,  
characterized by a housing having at least one first and one second ventilation  
opening (66, 68) and at least one ventilation conduit, which extends continuously  
from the first ventilation opening (68) through the planetary gear (12) to the  
second ventilation opening (66).  
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6. The handheld power tool as defined by one of the foregoing claims,  
characterized by a coupling region (38) and at least one ventilation conduit that  
extends continuously from the coupling region (38) to the motor (10).
- 30 7. The handheld power tool as defined by one of the foregoing claims,  
characterized in that the air-moving means (46, 78) is located in the immediate  
vicinity of a gear wheel of the planetary gear (12).
8. The handheld power tool as defined by one of the foregoing claims,

characterized in that the air-moving means (46, 78) is rotatable in two directions of rotation and in both directions of rotation generates an air stream in the same direction.

5        9. The handheld power tool as defined by one of the foregoing claims,  
characterized in that the air-moving means (78) has blades (86) with at least two  
blade faces (88, 90), and one blade face (88), in a first direction of rotation, directs  
the air at least partly in an axial direction (54), and the other blade face (90), in a  
10        second direction of rotation opposite the first direction of rotation, directs the air at  
least partly in the same axial direction (54).

10        10. The handheld power tool as defined by one of the foregoing claims,  
characterized in that the air-moving means (46, 78) generates an air stream  
directed in the radial direction (58) and includes a deflection means for deflecting  
15        the air stream in the axial direction (54).